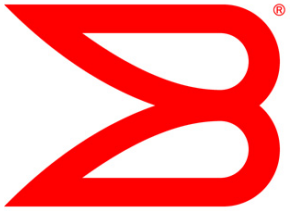

NETWORK MANAGEMENT

Migrating from Brocade IronView Network Manager to Brocade Network Advisor

Brocade Network Advisor continues Brocade leadership in network management with a unified SAN/IP network management software platform. It integrates the SAN management capabilities of Brocade Data Center Fabric Manager (DCFM) and the IP network management capabilities of Brocade IronView Network Manager (INM).

BROCADE

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INTRODUCTION

Brocade® Network Advisor 11.0 is a new software management platform that unifies network management for SAN, IP, and converged networks. It provides users with a consistent user interface across Fibre Channel (FC), IP, and Fibre Channel over Ethernet (FCoE) / Data Center Bridging (DCB) along with custom views and controls based on users' areas of specialization. Network Advisor provides users with the utmost flexibility in deployment and operational models, including traditional SAN deployments (FC, iSCSI, and NAS), traditional Ethernet deployments (Access/Aggregation/Core) and end-to-end convergence (FCoE, iSCSI, and NAS over DCB).

As demand for administrative resources continues to rise, Brocade Network Advisor provides time-saving tools that help automate repetitive tasks by using intuitive wizards. As a result, organizations can automatically discover Brocade IP switches and MPLS routers, application delivery switches, wireless devices, and SAN and FCoE switches. In addition, they can easily configure and deploy group policies—significantly reducing administration overhead and simplifying management.

Brocade Network Advisor also helps organizations discover, monitor, and manage converged FCoE network environments. In addition, Network Advisor provides comprehensive Layer 2 configuration, with easy-to-use Data Center Bridging (DCB) interface administration, FCoE port and trunk configurations, and Quality of Service (QoS).

Audience

This document provides Brocade customers who are currently using Brocade IronView® Network Manager (INM) with information about migrating to Brocade Network Advisor. It is not intended as a definitive technical reference, but it provides guidelines for installing or upgrading to Network Advisor for field engineers or IT personnel.

Documentation

For details about how to install, configure, and deploy Network Advisor, ensure that you have access to the Network Advisor product documentation suite, which can be downloaded from MyBrocade:

- *Brocade Network Advisor SAN User Manual.* Describes only the SAN part of Network Advisor for customers who want to use Network Advisor to manage their SAN only
- *Brocade Network Advisor IP User Manual.* Describes only the IP part of Network Advisor for customers who want to use Network Advisor to manage their IP network only
- *Brocade Network Advisor SAN + IP User Manual.* For customers who want to use Network Advisor to manage both their SAN and IP networks
- *Brocade Network Advisor Installation Guide.* Describes how to install Network Advisor (SAN, IP, and SAN + IP versions) and SMI Agent (SAN and SAN + IP versions only)
- *Brocade Network Advisor INM Transition Guide.* Describes how Network Advisor is different from Brocade INM for customers who are migrating from Brocade INM
- *Brocade Network Advisor Migration Guide.* Describes migration requirements for customers migrating from Brocade INM or Brocade DCFM to Brocade Network Advisor.
- *Brocade Network Advisor Release Notes.* Of course, you should always read the Release Notes for this and all subsequent versions of Network Advisor!

And other Brocade papers:

- *Brocade Network Advisor Features Brief for Data Center Networks*
- *Brocade Network Advisor Features Brief for IP Networks*
  It's especially important to consult this paper for an efficient way to become familiar with the new Network Advisor interface.
- *Brocade Network Advisor Data Sheet*

MIGRATION OVERVIEW

Device Platform and Hardware Support Requirements

The following table lists the version of Brocade firmware supported with the release of *Brocade Network Advisor 11.0* or later. Brocade recommends using the latest firmware version in order to get the greatest benefit from the network. For additional details, please refer to the *Brocade Network Advisor Release Notes*.

Operating System	Device Type
2.7.01x or 2.7.02x	BigIron RX
7.1.xx and 7.2.x	FastIron CX, FCX-STK, FGS, FGS-STK, FLS, FLS-STK, FESX, FWS
7.1.xx and 7.2.x	FastIron SX/SuperX
5.0.x and 5.1.x	NetIron CES, CER, MLX, XMR, MLXe
12.1.x and 12.2.x	ServerIron ADX
10.2.01x and 11.0.x	ServerIron
4.1.x and 4.2.x	TurboIron 24X
4.3.0.0	Wireless Controllers - RFS 4000, RFS 6000, RFS 7000
4.1.0.0	Wireless APs – AP 7131, AP 7131N
2.5.0.0	Wireless APs – AP 5181
4.1.x and 4.1.01x	FastIron FES

NOTE: Although you do not have to install or know the Java version used because it is bundled with Brocade Network Advisor, development was conducted using Java JRE 1.6.0_21.

Upgrade Paths

Migration of data and settings from Brocade INM 3.3.00, 3.3.01, and 3.3.01a to Brocade Network Advisor 11.0 is supported. Direct upgrade from pre-3.3 versions is NOT supported; migrating both INM and DCFM to a single Network Advisor installation is NOT supported.

Data Migration

All data and configurations from Brocade INM are migrated to Brocade Network Advisor with the following exceptions:

- Security features
  - ACLs (ACL Manager, ACL Service, ACL Network, L2 ACL Manager)
  - MAC filters
  - Rate Limiting
- IronPoint 250
- Northbound interfaces
- VPN Policy Manager
- SecureIron Manager
- INM-style sharing
- sFlow data, sFlow monitoring actions (ACL/RL)
- SNMP performance data
- Event data (traps and Syslogs)
- Client inactivity timer
- Multi-login mode
- Restart server from client
- Topology settings

NOTE: When data and settings are migrated from Brocade INM, the INM installation path is not auto-detected on the Linux platform; you need to provide the path manually using the Browse button on the Copy Data and Settings page.

PLANNING

As with all network technology upgrades, planning is a critical part of the process. When you are migrating from one software application to another, you need to find out as much as you can about the new application and how it differs from the application you are currently using, that is, Brocade INM. Then decide the right time to upgrade and start putting a task list, task owners, and a timeline in place.

If Brocade INM is running on a server that does not meet Brocade Network Advisor system requirements (see the *Brocade Network Advisor Transition Guide*):

Option One:

1) Migrate Brocade INM to Brocade Network Advisor 11.0.0 on the same low-configuration machine.
2) Partial uninstall this version of Network Advisor 11.0.0 and share the partially uninstalled location.
3) Install Network Advisor 11.0.0 on the new higher-capacity system, pointing to the partially uninstalled network path, and proceed with migration.

Option Two:

1) Copy INM to another server before migrating to Network Advisor.
NOTE: For step-by-step details, follow the instructions in the *IronView Network Manager Software Release 03.3.01 Release Notes*, in the section titled "Copying IronView Network Manager to Another Server Before Upgrading."

2) Once copied, upgrade to Network Advisor on the new system.
NOTE: This method leaves INM untouched on the old system, but this method can only be used if INM is supported on the new system. For instance, if the new system is a 64-bit Windows OS, INS is not supported on that system and therefore this method cannot be performed

Migration Considerations

There are several things to consider when you are making the decision to migrate to Brocade Network Advisor:

- Back up the Brocade INM server before starting the migration (not applicable when implementing Option Two in the previous section, valid for Option One only).
- The supported database in Network Advisor is PostgreSQL. Before you start the migration:
  - Both Brocade INM and Brocade Network Advisor 11.0.0 should be installed on the same system.
  - Brocade INM services should be running.
  - Both the Brocade INM remote and local clients should be shut down.

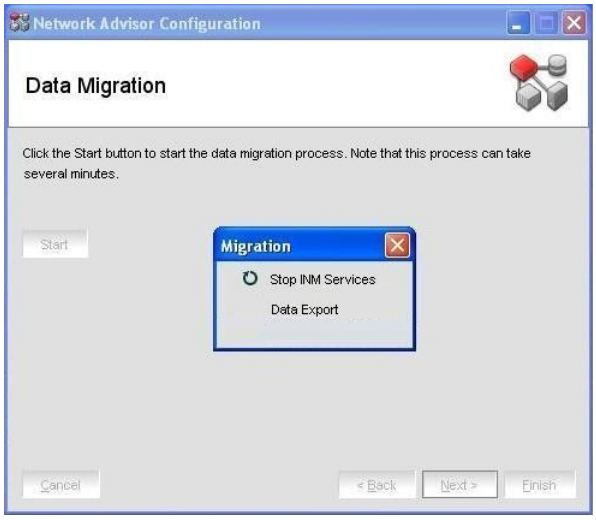

Figure 1. Data Migration screen in the Configuration wizard showing the Migration progress window

Once migration is started, you cannot stop the migration. Files stored in the `<INM Home>/Archive` folder are migrated to the `<Network Advisor Home >/data/IP` folder.

If INM managed more than 150 devices prior to the migration, you will be required to obtain a new license key for Brocade Network Advisor in order to proceed. Brocade Network Advisor will not accept an INM license key for migrations larger than 150 devices. If you do not provide a license key, the 75-day trial period for the IP-only version of Network Advisor is used. If the currently managed device count in Brocade INM is greater than the license device count of the IP-only version license key in Network Advisor, then an error message is displayed and you cannot continue.

Roles and Privileges

Roles and permissions are copied from INM to Network Advisor during migration. The migration process performs the appropriate mapping so that the user's capabilities are the same before and after the migration. To understand how roles and permissions work in Network Advisor compared to INM, refer to the appropriate *Brocade Network Advisor User Manual*. Default roles, their associated privileges, and consolidated privileges for Network Advisor are outlined in the product documentation.

Firewall Considerations

Certain ports must be open between the Brocade Network Advisor client and server processes. Also other ports could be optionally exposed for other services via the intranet connection on the Network Advisor server, that is, SMI-S, SNMP, HTTP, SSL, telnet, SSH, and FTP. If a firewall is put between the Network Advisor server and the managed devices, investigate which ports must be opened and which are optional. Do not consider just day-to-day management, but also the services listed above. For details, see the *Brocade Network Advisor User Manual*.

BROCADE NETWORK ADVISOR USER INTERFACE

Although much of the existing Brocade INM functionality has been provided in Brocade Network Advisor, the Network Advisor client interface looks very different from the Brocade INM interface. Figure 2 shows the Network Advisor main window—with Dashboard, SAN, and IP tabs. For example, in INM, action buttons for tables are usually in a panel above the tables or tabs, in Network Advisor, they are located in a panel to the right of or under the table. While group boxes are often used in INM, they are almost never used in Network Advisor. In INM, users interact with embedded panels, while in Network Advisor; the same interactions are performed in secondary dialog boxes.

To see examples of screens and other interface components, see the *Brocade Network Advisor Features Brief for IP Networks*.

Display of the tabs is controlled by the active license; the Dashboard tab is available in all options. For example, in Figure 2, the SAN and IP tabs are displayed because SAN + IP licensing is active, however in Figure 3, only the IP tab is displayed because an IP-only license is active.

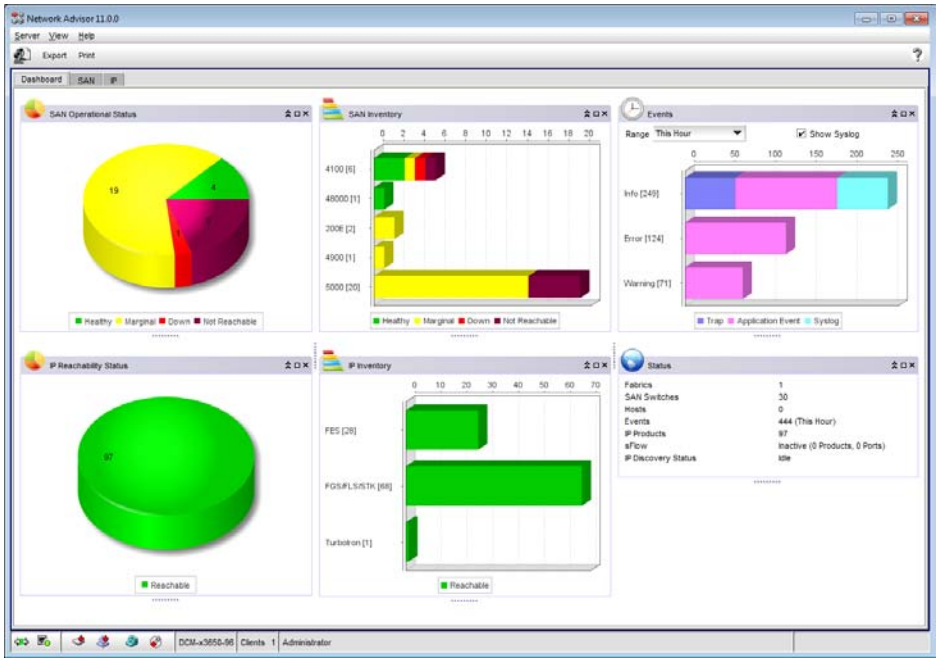

Figure 2. Network Advisor with SAN and IP tabs

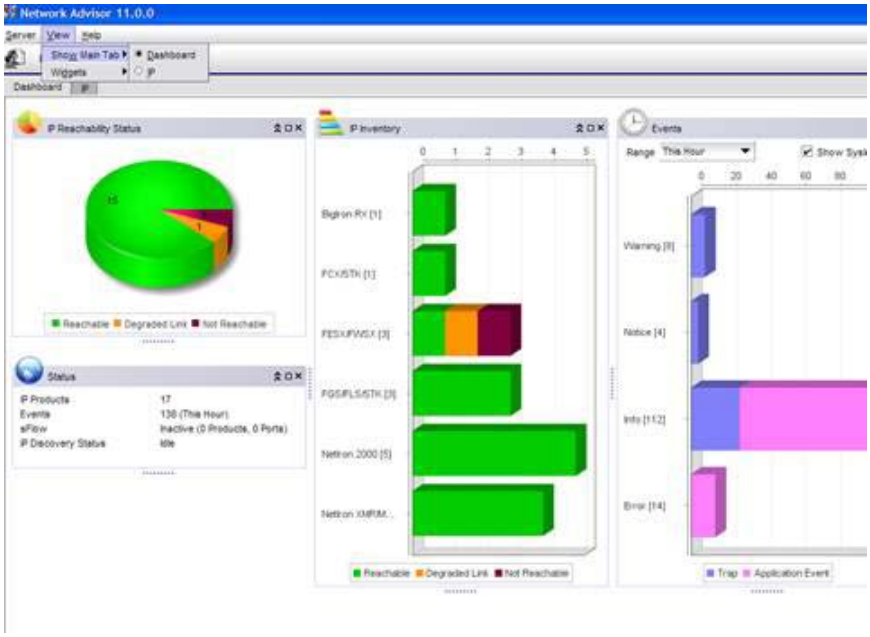

Figure 3. Network Advisor with IP-only tab

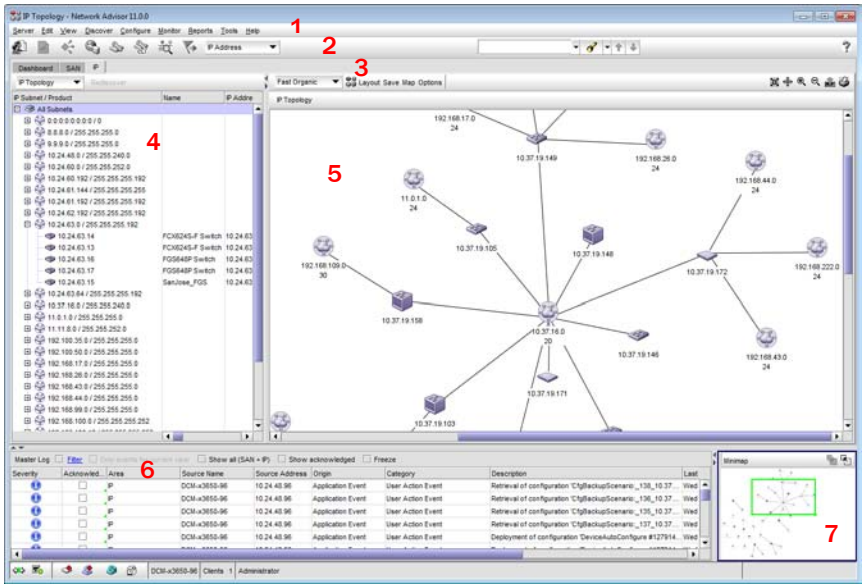

Figure 4: Network Advisor IP main desktop

The IP main desktop has seven panels (corresponding to the red numbers in Figure 4):

1) IP Main Menu Bar (top)
2) IP Main Toolbar (under IP Main Menu Bar)
3) IP Sub-Toolbar
4) Main Display (left center)
5) Topology View (right center)
6) IP Master Log (table at bottom left)
7) IP Minimap (bottom right)

DIFFERENCES TO NOTE

In addition to the interface differences mentioned earlier, Brocade Network Advisor, as the next-generation management platform, has significant enhancements in its underlying architecture and user experience. The following table gives you an idea of some of the changes you will experience if you're familiar with Brocade INM and you upgrade to Network Advisor.

Category	INM Feature	Details	Changes in Network Advisor
General	Launch	Browser-based, Java applets	INM Web pages are converted to Network Advisor main window panes and dialogs.
	User interface	Web style	All INM windows are converted to Network Advisor style dialog boxes. Commands across the top of INM windows are replaced by buttons on the right side and OK/Cancel/Help buttons are added at the bottom.
	Left pane navigation		Top-row menus and toolbar.
Home	Dashboard		A new tab in the Network Advisor main window. The Dashboard contains four widget options: IP Reachability Status, IP Inventory, Status, and Events. The widgets are customizable, and users can identify the widgets they would like to access, display on the Dashboard, and resize to fit their monitors. Users can double-click on a pie wedge or bar graph to display a filtered view of the selected devices in the IP tab's Network Objects view.
Administration	Global Preferences	Server Properties, *User Password Control Management, Device Communication settings*	Moved to Network Advisor's Options dialog box. Duplicate items (already in Network Advisor) are removed.
	User Manager	User Management, Terminating user sessions	The current Network Advisor Active Sessions Dialog is used to terminate user sessions.
	Role Manager	Role Management, AOR Management	IP permissions and default roles are merged with SAN permissions and default roles. DCFM's "resource groups" are renamed as "Areas of Responsibility" to match INM terminology.
	Restart INM server		Not available in Network Advisor client; server can be restarted from the server console.
	Licensing	Concurrent users and feature-based licenses	Device-based capacity licensing for up to 8 concurrent users/clients, as well as feature-based licenses.

Category	INM Feature	Details	Changes in Network Advisor
Discovery	Network Object Manager	Manual LAN discovery, device properties, Grouping of Devices/Ports	Converted to tree format
Topology Manager	IP Topology View	Router Subnet View	New smaller icons, but otherwise the same; topologies selected via a drop-down menu.
Configuration Manager	Schedules	Shows a list of schedules	Same functionality, moved to Configuration backup scheduler.
Event Manager	Event Log	Event Viewer	Merged with Network Advisor master log to include capabilities of both. New "freeze" option added.
North Bound Interfaces	ODBC		Still available, but database name and credentials have changed. Please refer to *Brocade Network Advisor Installation Guide.*

Brocade INM Features Unsupported in Brocade Network Advisor

The following table gives you an idea of the features that are not available in the initial release of Brocade Network Advisor 11.0 but may be added in future releases.

Category	INM Feature	Details/Comment
Interface	MRP Topology View	MRP Ring connectivity, status , and root cause
Configuration Manager	Realm Manager	Wireless
	ADC Manager	Wireless
	Wireless Mobility	Wireless
	VPN Policy Manager	
SecureIron Manager	Denial of Service (DoS)	
MAC Filter Manager	MAC filters	Configuration of MAC filters
ACL Manager	ACL	Configuration of ACLs
	ACL Service	
	ACL Network	
	Layer 2 ACLs	Configuration of Layer 2 ACLs
Rate Limiting Manager	Rate Limiting Manager	Configuration of rate limiting
	Rate Limiting ACLs	

Category	INM Feature	Details/Comment
Reports	RF Overview Report	
	Rogue AP Report	
	AP Reports	
	Station Reports	
	Sensor Status Report	
	AP Current Sessions Report	
	AP Session History Report	
	AP Throughput Report	
	AP Usage Report	
	AP IDS Report	
North Bound Interfaces	NBI	RESTful Interfaces
Other	Brocade IronShield 360	
	Sharing	Not present in Network Advisor; payloads and report definitions are available to a user with permissions.

INSTALLATION AND DEPLOYMENT

Installing Network Advisor

Ensure that you have a Brocade Network Advisor license file before the installation. You can install Network Advisor by either:

1) Using the DVD

2) Downloading the software from the www.brocade.com (see Appendix A).

Network Advisor 11.0 provides a single installer, which allows configuration options such as choosing packages and installation type via the Configuration wizard. For detailed installation procedures, see the product documentation.

NOTE: You can run Brocade INM manually after installing Brocade Network Advisor, but you should not run both applications at the same time.

Running the Client

Launch the Network Advisor client either from the Start menu or use the "Web Start the Network Advisor Client" link on the Network Advisor Web page. This displays the login screen. The default user name and password are "admin" and "admin," which are both case sensitive. If you have changed the default user name and password in Brocade INM, then use the current INM values rather than the default values.

NOTE: The log in credentials noted above are specific to a migration from INM to Network Advisor. In a fresh installation of Brocade Network Advisor, the default user name and password are "Administrator" and "password."

In some cases, a network may use Virtual Private Network (VPN) or firewall technology, which can prohibit communication between servers and clients. In other words, a client can find a server, appear to log in, but is immediately logged out because the server cannot reach the client. *To resolve this issue, a set of ports need to be opened up in the firewall.* For a list of these ports, see the *Brocade Network Advisor User in* the section entitled, "Management server and client."

POST-DEPLOYMENT

Discovery of the Environment

- Click the **Discover Setup** button (fourth icon from left) icon on the main toolbar.
- If no products are detected in the IP or SAN + IP tabs, click the Discover links (circled in red in Figure 5) to display the Discovery dialog box (separate for IP and SAN). Note that the link is disabled if you do not have Discovery privileges.

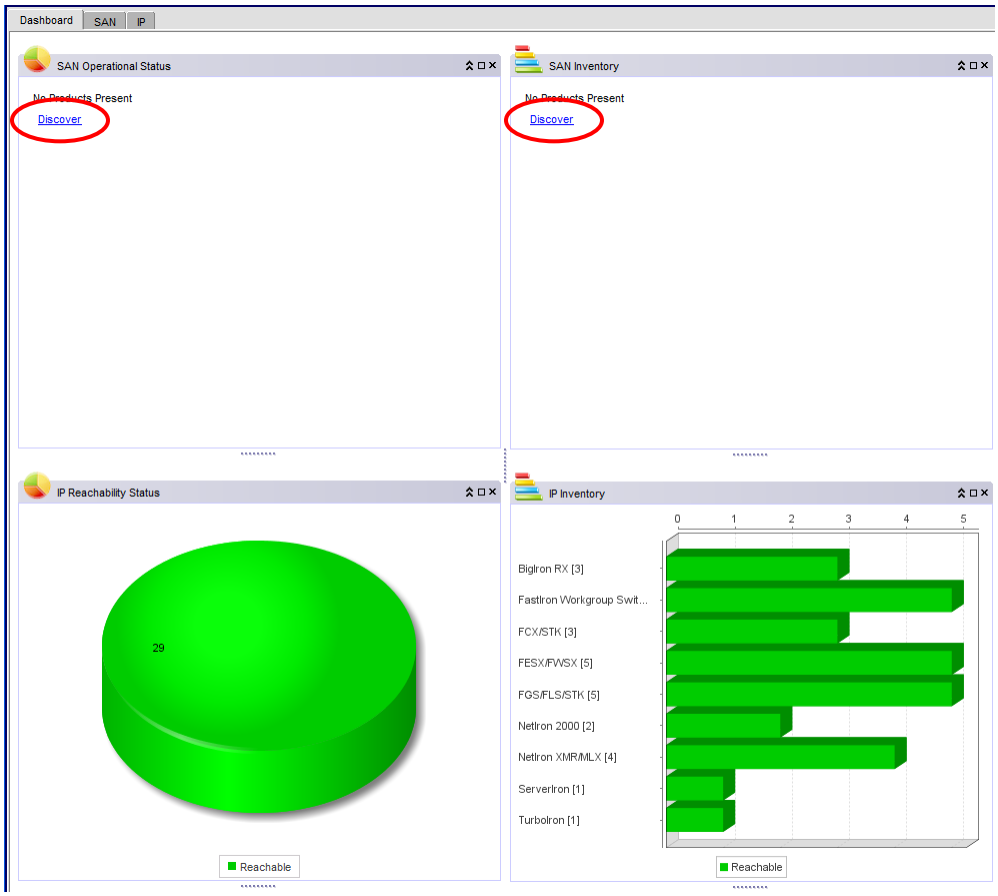

Figure 5. Click the Discover link in the IP or SAN + IP tabs

Finding Commands

In the *Brocade Network Advisor Transition Guide*, you will find a table that details the changes in menu command mapping between Brocade INM and Network Advisor, including commands were not implemented. See also the section entitled" Brocade INM Features Unsupported in Brocade Network Advisor" earlier in this paper.

Technical Support Information

After installing Brocade Network Advisor, take a snapshot of diagnostic information to help with potential support issues. Open the Server Management Console (**Start > Programs > Network Advisor 11.0.0 > Server Management Console**) to create a snapshot and perform these steps:

1) Click the **Technical Support Information** tab. Note that the Technical Support Information tab is enhanced to provide options to include or exclude the database and to select Full or Partial database.

2) Uncheck the **Include Database** option if you wish. Or if you leave it checked, click **Partial** or **Full** (see details below).

3) In the Output Path text box, specify the path to a location in which to save the Network Advisor server technical support information or browse to a location. Choose a location outside the local drive, so that in the event of a system failure the Network Advisor server can still be restored.

4) Click **Capture** to gather all the information, and then click **Close**.

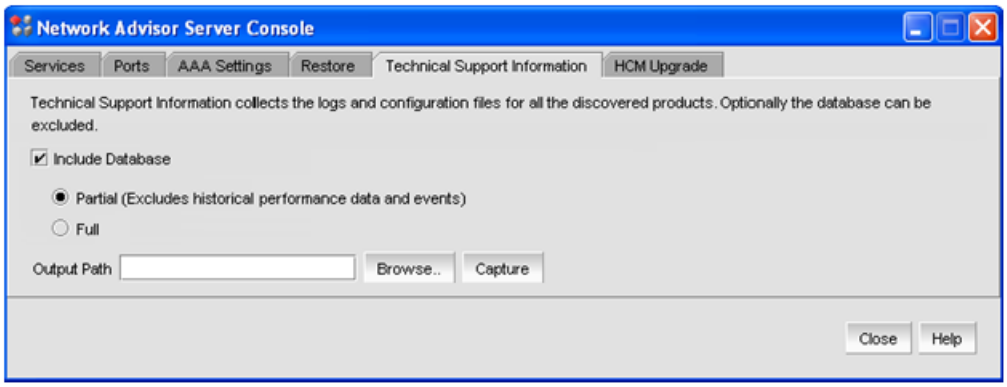

Figure 6. Network Advisor Technical Support Information screen

Since Brocade Network Advisor manages both SAN and IP, the database size and hence the Support Save may grow in terms of GBs of size. The database occupies the greatest amount of space in Network Advisor Support Save. In the database, about 80% of the size is dedicated to performance statistics and events data, which may not be needed for troubleshooting. Hence you have the following options for capturing Technical Support information:

- To exclude the database completely if you do not want to send entire database for troubleshooting
- To include the database completely or partially, as required in most cases; this is the default option

Selecting Partial captures the database excluding Historical Performance Statistics data and Events data. However, to get information from recent Events and Stats, Network Advisor by default includes 5,000 records from the EVENT_DETAILS_INFO view and 2000 records from the Performance stats table. The numbers of records are externalized to the following properties file, which can be configurable: `<Network Advisor Home>/conf/db-partialcapture.properties`.

APPENDIX A: PURCHASING BROCADE NETWORK ADVISOR

Brocade Network Advisor is available with flexible package and licensing options for a wide range of network deployments and for future network expansion. The no-cost Network Advisor for IP Professional is included with all Brocade hardware platforms. It includes a subset of features found in the licensed versions of Network Advisor for IP and is designed to manage Brocade IP switches a maximum of 20 devices and 1,000 ports. You can upgrade to the licensed version via a flexible package option based on the number of devices and/or number of MPLS devices you want to manage.

Brocade Network Advisor software and documentation are shipped on a DVD or available via download (see the *Installation Guide* for details). If you are interested in the licensed version Network Advisor for IP, a 75-day trial is available. You can upgrade from IP Professional to a licensed version of IP Enterprise by adding a license key.

- Network Advisor for IP Professional can be downloaded from http://www.brocade.com/services-support/drivers-downloads/software-evaluations/index.page.
- Network Advisor for IP Enterprise Trial versions can be downloaded from http://www.brocade.com/services-support/drivers-downloads/software-evaluations/index.page.

If you have an active support contract, you will be offered a no-cost upgrade to Network Advisor for IP Enterprise up to 150 devices. To do so, contact the vendor of your original purchase or Brocade Direct.

Brocade Network Advisor for IP Professional and the licensed IP version feature support is detailed in the following tables.

Hardware Platform	Unlicensed IP Professional	Licensed IP software
Brocade BigIron RX-4, RX-8, RX-16	✓	✓
Brocade FastIron CX (FCX624S, FCX648S, FCX624S-HPOE, FCX648S-HPOE	✓	✓
Brocade FastIron CX (FCX624S-F)	✓	✓
Brocade FastIron CX (FCX624-E, FCX624_I, FCX648-Em FCX648-I)	✓	✓
Brocade FastIron FGX648, FGS648-STK	✓	✓
Brocade FastIron SX-800, SX-1600	✓	✓
Brocade NetIron CES48 (2048 port), CES24 (2024 port)	✓	✓
Brocade NetIron CER 2000	✓	✓
Brocade MLX-4, MLX-8, MLX-16, MLX-32	✗	✓
Brocade MLXe-4, MLXe-8, MLXe-16, MLXe-32	✗	✓
Brocade TurboIron 24X	✓	✓
Brocade ServerIron ADX 1000, 4000, 10000	✗	✓
Brocade Mobility RFS4000, RFS6000, RFS7000 Controllers	✓	✓
Brocade Mobility 5181, 7131 Access Points	✓	✓

Feature	Unlicensed IP Professional	Licensed IP Software
# of devices	Max. 20	Max. 5,050
# of ports	Max. 1,000	Max. 252,500
# of MPLS devices	✘	Max. 5,000
Dashboard	✓	✓
Discovery of IP products	✓	✓
Topology Manager	✓	✓
Fault management	Partial	✓
Administration/RBAC	✘	✓
Change Manager	Partial	✓
Performance Monitor	Partial	✓
Reports	Partial	✓
Configuration Manager	Partial	✓
MPLS Manager	✘	✓
Traffic Analyzer	✘	✓
ADP Manager	✘	✓
Third party device support	✘	✓
Call Home support	✘	✓

NOTE: Partial = Consult the *Brocade Network Advisor IP User Manual* for a detailed description. For example, real-time performance monitoring is supported in both the unlicensed and licensed versions; however, historical performance monitoring requires the licensed version.

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